



IMF Working Paper

The Cost of Government and the Misuse of Public Assets

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Abstract

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This paper deals with efficiency in the public sector. It argues that the habit of relating efficiency to public spending, as is generally done, may give wrong results when, as is often the case, public institutions use public assets (land, buildings, etc.) without imputing a cost for that use. The paper argues that, because of lack of incentives, governments are often wasteful in their use of publicly held assets. It recommends the creation of "cadastres" of publicly owned assets that could be used for several purposes including increasing public sector efficiency.

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I. INTRODUCTION

In recent decades, because of the growth of public spending, much attention has been directed to the efficiency of the public sector and much effort has been aimed at developing techniques that would allow experts to identify unproductive public spending or at least public spending not justified by the benefits produced by it. See, inter alia, IMF (1995). The aim of this literature has been to increase the benefits that countries derive from the large share of national income that goes to finance government spending. Getting more value for money spent has been the guiding principle of this effort.

This literature has been focused on the use of "public money" or "government revenue," often measured as a share of GNP or GDP. However, governments not only use tax or borrowed money to provide services to their citizens but also the assets that they own. These assets may represent a large share of a country's total wealth. The efficiency in the use of publicly owned assets, as compared with the efficiency in the use of tax or borrowed money, has not received much attention, especially by economists, except for the assets owned by the public enterprises.² The implicit assumption seems to be that governments use fully and efficiently their assets except perhaps in their public enterprises. For public enterprises, privatization has often been recommended and, in recent years, countries have sold many of their public enterprises, thus raising a lot of money for the budget while generally improving the efficiency and the profitability of the enterprises. However, many publicly owned assets are not in the hands of public enterprises and many enterprises or institutions remain public. For these other assets the movement towards privatization has been much more limited.

This paper will focus on publicly owned assets in general and not specifically on those held by public enterprises. It will argue that major inefficiencies often exist in the use of these assets either because some are not used at all or, if used, they are put to unproductive uses. It will also argue that, in most countries, there are no incentives to correct this situation. These inefficiencies may be large enough to change the relation between the *total* use of public resources (including revenue raised *and* assets owned) and total social benefits. Additionally the relations between budgetary spending in various categories and total use of economic resources in each of these categories may also be distorted. In fact the focus on "spending," which often characterizes the analysis of public sector efficiency,³ may distract from the relation between total resource use and final outcomes when, as is often the case, the government uses not just "public money" or budgetary appropriations to carry out its activities but also publicly owned resources. Putting it differently, activities that may be cheap from a budgetary point of view may, in fact, be expensive from a resource-used point

² As reported below, accountants have started paying attention to the efficiency in the use of public sector assets and a few countries have started to take action accordingly. The movement towards accrual accounting in part reflects this trend.

³ See, as a typical example, the paper by Gupta, et al (1999).

of view. In particular, military activities tend to be particularly expensive in terms of resource use. The paper will also argue that this same problem exists to some extent in those private sector activities that receive preferential tax treatment from the government.

The rest of the paper consists of four sections. Section II identifies the problem for the public sector. Section III argues that the private sector may generate similar inefficiencies under certain public policies. Section IV discusses selected countries' experiences and suggests some policy changes. Section V concludes the paper.

II. ON THE MISUSE OF PUBLIC ASSETS

This paper had its genesis some 30 years ago when one of the authors was struck by an egregious example of the misuse of public assets discussed in this paper. He was in Rio de Janeiro, when that city was still the site of the national government of Brazil. He was walking on the Avenida Atlantica, the splendid avenue that separates Copacabana beach from the large hotels that face the beach. The land on which the hotels are built is obviously very expensive because of its adjacency to the beach. At one point, squeezed between two of these hotels, there was a public school. Its location in front of the beach would almost surely distract the students from their school activities. Furthermore, land with an extremely high market value was being used for an activity which, though socially important, could be located (to the benefit of the students' learning) a couple of blocks away from the beach and on much cheaper land. This relocation would have released the land occupied by the school for the use with the highest market value. Such a change would undoubtedly be welfare improving because it would raise national income while affording the government the possibility to build an equivalent or better school with the revenue from the sale of the land on which the school was built. At the same time, the students would move to a location where distractions would be much reduced.

Because the land on which the school was built had probably been in public hands for a long time, and had thus been bought very cheaply, and because in a budgetary system that relies on costs *as measured by actual cash payments*, the opportunity cost of using this expensive land for the school would not be reflected in the budgetary cost of running the school. From a budgetary point of view the cost of running the school might not seem particularly high. The budget of the school, or of the education ministry, would not reflect the opportunity cost to society of the use of this land.

The example provided above describes the usual way in which the public accounts of most countries are generally kept for the activities of the public sector. Also, much of the discussion on fiscal policy by economists is related to these accounts. In most countries, the budgetary costs of schools, for example, do not include the opportunity costs of the publicly owned assets used by the schools. If the assets are buildings, the educational budget does not include the amortization or the rental value of these buildings. If they are land, the budget

does not include the opportunity cost of land use.⁴ The situation is the same for the health sector, for the military, for public railways and for other parts of the public administration. The military, for example, often use buildings and land with high market values for activities that could easily be located on much cheaper premises. Military bases or barracks on publicly owned land obviously prevent other activities from being carried out on this land but the implicit opportunity cost is not reflected in the military budget.

Because the use of land and other assets acquired in the past does not affect the current budgetary costs of various public activities, these assets are often treated as if their value were zero. Thus, we find military barracks in prime locations; railroad tracks that are left unused for long periods of time even when they are located on land that would have high value in alternative uses; public buildings that are left empty for prolonged periods of time; and so on. In fact the traditional approach to public budgeting (that generally relies on **cash** transactions) almost guarantees the misuse of public assets.

Over their existence the governments of many countries have come to own large public assets. In some cases, these assets are in public hands because of their very nature (rivers, beaches, lakes, forests, natural resources, etc.). In some cases these public assets were bought when their cost was low.⁵ In other cases still, they were acquired when someone died without leaving any heirs; or they were specifically donated or bequeathed to the government. In some countries, such as Italy, the closing of religious orders (convents, monasteries, etc) or even of some jails has left properties with high potential market value in the hands of national or, more often, municipal governments. Most countries do not even have a complete record of all the assets that the government owns thus making it difficult to monitor and control their assets.

Because the total market value of public assets may be high, while the incentives for putting these assets to their most productive uses are often missing, the potential income or welfare lost by leaving them unused, or by placing them in much less economically or socially useful activities, may be substantial. It may in fact significantly reduce a country's national income or the welfare of its citizens.

In spite of its large potential cost, the problem discussed above, has not received adequate attention on the part of economists or policy makers. Few countries have attempted to do a

⁴ On the other hand if new land is bought, the full cost of it is reported in the year in which the land is bought.

⁵ The Italian legislation, for example, makes a distinction between *beni demaniali* and *beni patrimoniali*. In New Zealand, the distinction is between crown assets and departmental assets. In France, the distinction is between *domaine public* and *domaine privé*. The first are assets that are public by their very nature. The latter are goods that have been acquired by the government and that could be privatized.

detailed inventory of all the public assets owned by the government. Fewer still have attempted to assign a market value to these assets and almost none has reflected these values in their use in public sector activities. The fact that different governments (national, regional, municipal) or different public institutions may own these assets obviously makes attempts at putting them to better, or to their best, uses administratively or politically difficult. In some cases, the process of putting them to their best uses requires up front cash expenditures when the budgetary situation may be very tight.⁶ This is the case, for example, when potentially valuable buildings are left unused for long periods because of badly needed repairs.⁷ Furthermore, the institutions that own them may face legal or political restrictions on their use that prevent them from selling these assets or putting them to the economically most efficient uses. In other words, through various laws or regulations, the public sector prevents itself from becoming more efficient.

If (a) a full inventory of publicly owned assets could be made so that a complete register of public assets were available; (b) if market values could be assigned to each of these assets; (c) if these market values could be used to impute an opportunity cost to the use of these assets in any activity to which they were put, and (d) if public sector institutions were free to put these assets to their most productive use, then it would be possible to significantly improve the efficiency of the public sector and to maximize the return on the wealth owned by the government. If this is not possible, and no strong social or political reasons exist for keeping these assets in the public sector, they should be sold.

An example of a country that has attempted to achieve *some* of these objectives is Italy. In 1985, the Italian government issued a decree aimed at achieving some of the results mentioned above. Specifically, the decree set the following objectives⁸:

1. to identify every publicly owned real asset;
2. to register for each asset its location, extension, and condition;
3. to estimate the values of these assets and ascertain what income they generate;
4. to examine the most productive potential uses of these assets;

⁶ It may also require legal authorizations to change their use.

⁷ In Buenos Aires, for example, the beautiful building that is now the Bolivar Gallery, a very expensive shopping mall, was empty for decades because its public owner (the railroad) did not have the money to fix it and was not willing or able to sell it. Also, the decaying buildings by the old port in which Puerto Madero has been developed were empty and unutilized for decades. These buildings were publicly owned. Now Puerto Madero is one of the most expensive areas of Buenos Aires. These examples exist in most countries.

⁸ See Commissione di Indagine sul Patrimonio Pubblico, *Relazione Conclusiva* (Rome: 10 November, 1987).

5. to assess the possibility of selling them to the private sector or to other public entities.⁹

A commission was appointed, chaired by a prominent public administrator, Professor Sabino Cassese; it reported its results in November 1987. It had made some significant, but incomplete, progress with respect to the first three objectives listed above, but none with respect to the last two. Its work on the first three objectives could not be completed because half of the municipalities and many other important public entities failed to provide the necessary information to the commission. In spite of this, and in spite of very conservatively assessed values, the commission estimated the total value of the assets at 31 percent of the 1981 Italian GDP. In spite of its limited success, this was very important work. Similar attempts on the part of particular municipalities have also not been fully successful.

The Italian attempt was a relatively early one aimed at addressing the issue raised in this paper. Other attempts have been made, and especially New Zealand and Australia have moved further in the direction of attempting to assign full costs to the use of public assets.¹⁰

III. MISUSE OF ASSETS IN THE PRIVATE SECTOR

On a smaller scale, similar problems of misallocation of resources are found in areas where the private sector is active but its activity has been directly conditioned or influenced by government policy including that related to zoning regulations.

The governments of many countries exempt from taxation private activities that have a charitable, social, or religious character; in other words, activities, that are not for profit and that promote socially desirable goals. For example, private schools, churches, monasteries, convents, and various charitable institutions as well as social clubs are exempt from taxes. These exemptions may have been given at a time when the land or the buildings on which these activities take place had a low value. However, when the potential value of these assets changes, because of urbanization or other reasons, they continue to be used for the same original purpose. In fact, through its zoning laws, the government may constrain the use of the assets to the original purpose. Thus the opportunity cost of using these assets rises while the budgetary or current costs for those who manage these activities may not increase or may increase much less. *Therefore, from a social point of view*, the activities become more and

⁹ Recently the Italian government has been trying to sell many assets owned by the state. However, strong political opposition has developed within the government itself. Various arguments have been used to prevent the sale of these assets.

¹⁰ Both France and the United Kingdom are in the process of making similar attempts at improving the efficiency in the use of public assets.

more costly, while the social benefits derived from them may not grow.¹¹ With the passing of time, both the opportunity cost for society of keeping the assets in the particular activity, and the implicit subsidy from the government (i.e. the tax exemption) may rise significantly. This implicit subsidy is related to the most profitable and thus unrestrained use of the assets.¹² An egregious example of this problem is provided by Georgetown Day School, a private school in the heart of Bethesda, Maryland. The school was established in 1789 when the area was agricultural and the land inexpensive. It occupies several acres of land with a potential value of perhaps tens or even, hundreds of millions of dollars if the land were put to its most profitable use.¹³ Over the years, the school has been educating a relatively small group of students who pay tuitions comparable to those charged by other private schools. From the students' point of view, the main benefits that they receive from going to this school is their education. The quality of the education is not related to the potential value of the land. The tuitions are presumably based on the current costs of running the school which must be similar to those of other private schools. However, if the opportunity cost to society of the use of the land that the school occupies were added to the current costs, then each student would be seen as being educated at an exorbitant social cost. If the students were charged the full opportunity cost of the land, the school would immediately close. It is, thus, obvious that from a social point of view the school represents a major misallocation of resources in spite of its socially desirable output.

The example of the Georgetown Day School can be generalized to many other activities, including religious activities, that operate as nonprofit institutions and that benefit from tax exemptions on assets that are allowed to be used only for their original purposes. Much income is lost to society when—because of favorable tax treatment by the government, such as the nonpayment of (property and income) taxes and because of specific limitations on the use of the assets—certain activities are able to continue to use increasingly more valuable resources for activities which, though meritorious in themselves, generate a very low return.¹⁴

¹¹ This result is similar conceptually to that connected with the Baumol's Disease. See Baumol (1967).

¹² Obviously as long as the use of the assets is constrained by government policy, their market value may also be kept low.

¹³ The land faces one of the most expensive shopping centers in the Washington area. It is also located in the hearth of one of the counties with the highest per capita incomes in the United States and is near the National Institute of Health.

¹⁴ For example, some churches located in the middle of cities may be visited by very few people. Some of these churches may not even have aesthetic quality that could justify their existence on grounds that they contribute to the beauty of an area.

The government also creates inefficiencies in the use of resources by the private sector through zoning laws that forces some economic activities to continue to use increasingly expensive assets over long periods of time. As an example from another part of the world, in the city of Mumbai (Bombay), the potentially most expensive land is occupied by textile mills established there at the beginning of the 20th century. The government has not changed the zoning laws, to allow this land to be used in more productive activities. The cost of this policy has been pollution, loss of tax revenue and the production of textile at very high social costs.

To our knowledge these issues have not been discussed in the literature on tax incentives or on tax expenditures. We also do not know of any study that has attempted to estimate the value of all the assets of a country that, because of particular treatment or restrictions by the government, continue to be used in their original functions in spite of major changes in the potential market value of the assets they use. In some countries the total social cost of this use of resources could be very high and growing over time.

IV. COUNTRY EXPERIENCES AND POLICY RECOMMENDATIONS

A. Country Experiences

Section II of this paper described the general situation that characterizes the use of public assets in most countries. Many countries do not have a complete and centralized register of public assets. Some would be at a loss to list or describe all the assets that the government owns. Even when countries have registers of such assets, they are often incomplete. Furthermore, with few exceptions, they do not have realistic, market-based estimates of the value of these assets.¹⁵ As a consequence, they cannot determine whether the assets are being efficiently used or, alternatively, what user charges they could impose on the public agencies that use these assets to make them pay for, or at least consider, the opportunity cost of this use.

International Accounting Standards (IAS) consider the economic benefit inherent in an asset, a benefit that can be converted into cash, as the acid test of what should be considered a useful asset for inclusion in the balance sheet of an enterprise. In the IAS framework, the economic benefit inherent in an asset is defined as the "potential to contribute directly or

¹⁵ For example, in Colombia, the National Accountant's Office gathers comprehensive information on assets and liabilities of the different government agencies for all levels of government in order to produce a consolidated balance sheet of the Colombian public sector. Each agency, however, is responsible for maintaining its own registry. The valuation is done on a historical cost basis, which includes investments on improvements, but clearly does not reflect current "market" value. The use of historical costs is common in the countries that attempt to value public assets.

indirectly to the flow of cash and cash equivalent to the enterprise." It recognizes that a physical form is "not essential to the existence of an asset," and hence patents, copyrights, and goodwill are valuable assets if these are controlled by the enterprise and if future economic benefits are expected to flow from them. The critical factor is 'cash' because of its "command over other resources." The IAS framework is, however, not geared to the public sector and governments have generally not adopted IAS standards. The application of these standards for the public sector continues to be debated.

Most governments recognize only those current and capital assets for which they can unambiguously establish the value. These include capital assets such as vehicles and machinery, and current assets. Most governments do not value explicitly assets such as buildings, parks, and land, where valuation may be more difficult to establish. Or, when they do it, they use historical costs which tend to be of little value. However, a few governments such as Australia and New Zealand have started to value most public assets at current prices.

In Australia and New Zealand the guiding principle is that an asset should be capable of generating market returns. The Australian Accounting Board (Australia, 96) states that: "An asset must be recognized in the statement of financial position when and only when: (a) It is probable that the future economic benefit embodied in the asset will eventuate; (b) the asset possesses a cost or other value that can be measured reliably." The Australian Accounting Board requires infrastructure assets (transport systems including highways), heritage assets (historic buildings, monuments), community assets (parks and recreational reserves) "which yield economic benefits over long periods of time to be recognized in the financial statements."

Following the established market principles of recognizing assets, the governments of Australia and New Zealand, include all assets in their balance sheets and other financial statements. The assets recognized by New Zealand in its balance sheet for fiscal year 1998 include cash and bank balances, marketable securities and deposits, advances, receivables, inventories, state-owned enterprises and crown entities, other investments, physical assets, commercial forests, state highways, and intangible assets. Physical assets include buildings, plant and equipment, and state highways. These holdings are recorded **on a net, current value basis**, which is the market value after depreciation. Land associated with the State highway "is valued using an opportunity cost based on adjacent use, as an approximation of net current value." Financial statements record depreciation on these assets as well as any loss on the sale of these assets. The statement on performance indicators measures the current ratio (current assets/current liabilities), total physical assets, and the value of physical assets per employee.

In the US, the Federal government's financial statements use accrual based accounting, while Federal budgetary reporting is on cash basis (Treasury, 2000, p. 7). But financial reports of the US government do not provide any information on the inventory or the economic value of these assets, much less on how these assets have been used. The Auditor General's report on the US government's financial statement of 1999 reinforces this point. "The Federal government—one of the world's largest holders of physical assets—does not have adequate

systems and controls to ensure the accuracy of information about the amount of assets held... A majority of the \$462 billion of these reported assets is not adequately supported by financial or logistical records."

However, two promising developments have recently taken place in the US. First is the issuance (in 1999) of Governmental Accounting Standards Board's (GASB) statement No. 34, Basic Financial Statement—and Management's Discussion and Analysis—for state and local governments. GASB 34 requires that all capital assets, including general infrastructure assets, should be capitalized using **historical** cost (GASB, 1999). However, use of historical cost will not provide significant information on the underlying real economic value of the asset, and hence will not necessarily lead to better asset use.

Secondly, the Office of Management and Budget (OMB) of the US government has supported the recommendation of the President's 'Commission on Capital budgeting' to impose 'capital usage charge on the asset-using programs' (OMB, 2000. P. 144).

There are very little data on how governments use their existing resources, especially their fixed assets although there is a lot of anecdotal or informal evidence. Some indirect evidence that governments misuse existing assets can be inferred from the inadequate budget provision for the maintenance of assets, from the general inadequacy of operational budgets and from the many assets that are left abandoned or underutilized often for a long time.

There is evidence of neglect in both developing and developed countries. In many developing countries, half-finished hospitals and school buildings with no students or teachers are dramatic examples of wasted or inadequately used assets. The problem takes a slightly different form in developed countries. In the more advanced industrial countries, governments typically ignore to take into account the opportunity cost of the use of public resources. It is not uncommon to see public schools, army bases and other facilities, such as jails, located on the most expensive real estate in major cities when much cheaper alternative locations are available;¹⁶ transportation facilities that are overused for short periods each day and then much underused for the rest of the day imply pricing policies that ignore opportunity costs; and unused historical, artistic or other cultural treasures. For example, some museums have many valuable pieces of art stored in their basements which are not seen by anybody for decades. These treasures are not generating any income (financial or otherwise) in spite of their great market values.

Governments can use their sovereign and regulatory powers to allocate resources to their most efficient uses. For a variety of reasons many governments choose either not to exercise these regulatory powers or to use them selectively. One example is the use of urban

¹⁶ In Rome the *Carcere Giudiziario*, a very large building in the most expensive part of Rome, is a jail for juveniles. Obviously the budgetary cost of running this jail widely underestimates the true economic cost.

government land. If it were taxed as private land, then governments might be induced to improve the use of this asset and not to treat it as a free good. Proper pricing would bring into sharper focus the rationale for their use and their attendant true costs. For example, if the US federal government were to pay property taxes on the assessed value of its federal property in Washington, DC, it would be forced to follow a more rational choice for locating federal offices. Offices that did not need proximity to the city center would be located where land is cheaper. This would release the vacated land or buildings for economically more valuable activities.¹⁷ By contrast, the private sector is constantly forced by competitive forces to use its assets in their most productive functions.

Governments are at times indifferent even to the optimal use of "liquid" assets. Gold provides a good example. Henderson, et al. (1997) have considered the use of gold reserves held by the US government. They have concluded that "aggregate welfare gains from making gold available now rather than twenty years later are quite substantial." It has similarly been argued that the gold held by the IMF could be put to more productive uses. Certainly the IMF could earn a high rate of return on the market value of the stored gold. Though some countries have in recent years sold a part of their gold holdings to augment their foreign exchange reserves (which generate an income) most have not. In today's world, it is difficult to find a good rationale for the governments' hoarding of gold.

In many countries, the rational or economic use of existing resources is often caught up in public choice debates. For example the location of public schools in the US has been a contentious issue. The location of a high school on prime real estate in Manhattan raises many issues of social choice. Can the market price be used to measure the true cost-benefit or trade-off between a school and an office block? What price should the community demand to allow a school to be replaced by a land use based on market values? Can the net welfare gain be computed over time? Is it possible to construct a model that translates the net monetary gain from the market determined land use into a net welfare gain, on the assumption that the funds are used to improve education—to hire better teachers, to improve facilities, etc.—and that this then leads to a higher earning potential of the students? These questions are rarely addressed in an analytically satisfactory way.

In many cases however, the economic analysis is straightforward. The armory situated on prime real estate, (say the Presidio in San Francisco), can be located at a less expensive location without any adverse impact on its functions or its objectives. Displaying paintings locked in a museum basement will have a current cost but also a significant impact on the

¹⁷ An example of a relocation that most likely led to a better use of public assets was the move of the French ministry of finance and economy from the Louvre to Bercy. The vacated space was taken over by the museum of the Louvre.

quality of life. If the museums who own them are not able to display them even on a rotating basis, they should be lent out or sold. Such analyses are rarely part of the public debate.¹⁸ When the net worth of the government is calculated, a major component is the value of fixed assets. Different valuation techniques are applied to different kinds of public sector assets. See Buiter (1983). For instance, national forests are a naturally occurring asset and could thus be valued at the cost of land in similar areas, whereas state highways are a man made asset and could be valued on a replacement basis after depreciation and taking into account the value of the land used.

At present most governments do not allow managers sufficient freedom to make decisions regarding the use of public assets. Even in New Zealand, the pioneer in some of these reforms, there has been considerable debate whether the new approach has resulted in an improvement in public goods and services. For example, since each department in the government is treated as a cost center, there has been limited utilization of assets *across* departments. Ministries do not have an incentive to let other ministries use their assets even if the alternative use would be more productive. This problem is not unique to New Zealand, but it illustrates that just changing accounting practices and the analytical framework for assessing government decisions does not necessarily lead to better public management in the absence of other changes.

A more gradual experiment is underway in the United Kingdom. The UK has taken a step by step approach to the use of accrual accounting and of market-based practices to the analysis of costs.

Many experiments in budgeting, such as program and performance-based budgets and zero-based budgets, have also tried to deal with the issues of resource use and to link resource use to final outputs. Zero-based budgets try to assess resource use at every stage of the allocation decision. In program and performance budgets the attempt is also to evaluate outputs with reference to the stated objectives. But in all these experiments in budgeting, the emphasis has been largely to evaluate the outputs within the framework of annual budget allocations and thus within current outlays unless new, fixed capital expenditure is required and unless governments have tried to relate medium term spending programs to medium term output delivery as it is done in the UK's Comprehensive Spending Reviews. The cost of existing fixed assets is considered as a sunk cost and is thus irrelevant to the decision making framework. But as long as these fixed assets have a higher value in other activities, including those in the private sector, ignoring them will often lead to inferior results.

¹⁸ Works of art permanently locked in the basements of public museums generate no welfare to society.

B. Policy Recommendations

As we have seen, in recent years, several countries have started to be concerned about this issue and a few have tried to do something about it. Several countries including, especially, New Zealand, Australia, the United Kingdom, and France are establishing, or have already established, fairly complete registers of the assets of the central government. In other countries, specific public institutions including ministries may have established such lists for the assets that they control, but there may not be a centralized register. In other cases, the list is centralized but not complete. In most cases, it is limited to the assets of the central government and, thus, it leaves out the assets owned by the rest of the public sector which in most countries are considerable. However, the misuse of public assets is as frequent at the subnational level as at the national level.

Clearly, use of better accounting or budgeting methodologies (such as accrual based accounting) per se will not lead to better asset use. There is, quite often, little use made of financial reports to improve resource allocation. In many local governments in the United States, for example, budgeting, accounting and asset management units are three different branches with little interaction for resource allocation purposes.

Ideally, governments should have a *cadastre* of public assets; that is, they should have an official register of the **quantity and value** of all the assets owned by the public sector. These cadastres would have to be updated periodically. Such cadastres exist for private properties in countries that levy property taxes.¹⁹ If they existed, public sector cadastres would make possible the imposition of **capital charges** for the use of public sector assets used by ministries and other public agencies. These capital charges should reflect the opportunity costs of using these assets in the public rather than in the private sector. These costs would be based on the potential earnings of these assets in the private sector. Budgetary systems that reported not only cash expenditures but also implicit capital charges would be more useful tools in promoting public sector efficiency than current budgets because they would reveal the true economic cost of public sector activities.

An official cadastre of public assets could serve several purposes.

First, **it would** provide the value of the assets owned by of the government of a region, a state, or a country so as to **help rating agencies** in determining the credit rating of that government. An important example of such use comes from the State of Massachusetts. In

¹⁹ Of course, cadastres used to levy property taxes may also be out of date as to the values as well as to the inclusiveness of the assets. Assets built illegally and not registered are often left out. In some countries, there have been amnesties that have encouraged the registration of illegally built assets such as houses or, more often, extensions to houses. These amnesties have allowed the "hidden" assets to be registered against the payment of some penalties or taxes.

1992, Massachusetts faced a fiscal crisis and needed to borrow large amounts of money from the capital market. See Keigh and McHugh, 1993. It had been unable to get a clear, unqualified opinion from the independent auditors on its Comprehensive Annual Financial Report (CAFR) because the real assets owned by the State could not be audited due to the absence of records. This situation had the potential of further lowering the already low bond rating (BBB) of the State. Such downgrading of the bonds would significantly increase the cost of future borrowing. To counter this possibility, Massachusetts decided to prepare a comprehensive inventory of all its public assets along with their valuations. This task was completed using a variety of techniques.²⁰ Similar exercises have taken place in a few other U.S. states. However, these values have not been used for imputing an opportunity cost (a capital charge) for the use of these assets in the public institutions that own them.

Second, and related to the first purpose, **it would facilitate the calculation of the balance sheet or the net worth of the government** as, for example, proposed by Boskin (1982) and by Buitier (1983). New Zealand, Australia, and Iceland have estimated the net worth of their governments and the Eurostat has requested European countries to begin the preparation of balance sheets. However, it is not clear whether the latter would include the current market values of public fixed assets; many of the European countries do not have such values. Cadastres of public assets should also play a role in the construction of generational accounts although they do not seem to have been used in these calculations. See Auerbach, et al. (1999).

Third, it would reduce the possibility that public assets simply "disappear" as has happened in some countries. **A cadastre would be a useful instrument for better controlling public assets.** Countries, where assets have been "stripped" from the public sector and have somehow "migrated" into the private sector did not have good registers of these assets or, as in some transition countries, the registers had not been kept up to date. These assets were often bought at ridiculously low prices. More often, however, the public assets have been put to what are essentially private uses. For example, public buildings have been used as residences by political figures, at times against the payment of nominal rents.²¹

Fourth, and most importantly, **it would permit a government to impute capital charges to public agencies or institutions that use these assets to force them to use these assets efficiently.** These charges would reduce the possibility of misuse of public assets by the

²⁰ It should be realized that, in general, the liabilities of a government are often easier to measure than the assets.

²¹ The Italian press, for example, has occasionally reported that some political figures have benefited from the use of valuable residences owned by the state at very low rents. More frequently these buildings are made available to some associations which thus implicitly receive subsidies for their activities which are not reported in the budgets of the governments that grant them.

public institutions that control them and would make it possible to compare the real cost of alternative activities. Six OECD countries say that they impose a charge on capital assets used by the government. These are Australia, New Zealand, the Netherlands, Switzerland, the United Kingdom, and Greece. For some of these it is not clear, however, how they do it or how efficiently they do it. See OECD (2000).²²

Finally, **a cadastre of public assets could become an important building block for an extension of accrual accounting to include the use of capital charges.** For the time being, accrual accounting does not require capital charges although conceptually it points in that direction by providing for depreciation.²³

Most governments, however, do not have the necessary institutional systems, or managerial skills and capacity to successfully introduce these methods. The development of such a capacity will take time but it would be a worthwhile effort. In the meantime governments will continue to rely on traditional methodologies and will continue to misuse public assets.

V. CONCLUDING REMARKS

Is it possible for governments to use their assets more efficiently? Governments are not, currently, making optimal use of their assets. Experience has demonstrated that in both developing and industrial countries better choices are made when decision makers can base their decisions on full information, have the freedom to make decisions, and have the incentives to make good decisions.

There are techniques, used in the private sector, such as accrual based accounting and net worth analysis, that could be used in the public sector to bring about a better use of public assets. However, the special nature of the public sector makes the application of these techniques much more difficult than in the private sector. The public sector needs to establish an integrated framework in which good accounting techniques guide economic decision making. The experience with the application of accrual-based accounting techniques suggests that these techniques can be applied to the analysis of public sector decisions but that they do not automatically lead to improvements in the management of public goods and services.

This paper has dealt with an issue of considerable importance but one that has received little attention, except in a few countries. Publicly owned assets may represent a large share of a country's total wealth. Therefore, if these assets are not put to productive uses, the welfare of

²² The United Kingdom and Greece impose capital charge on land and buildings while the Netherlands imposes it on capital employed in agencies only. (OECD, 2000).

²³ The IMF has been preparing a manual on government finance that would introduce a change from a cash to an accrual base in reporting public sector accounts.

a country, or even its national income, could be reduced by significant amount. There is a lot of evidence that these assets, in fact, are generally not put to productive uses. The paper has also briefly discussed the growing social cost of private activities which, through zoning or tax incentive decisions, are allowed or forced to remain in activities with low economic, or even social, rates of return. The addition of public and private misuse, or unproductive use, of resources can amount to a substantial cost for society. This is undoubtedly an area that deserves more attention on the part of policymakers, economists, accountants, and public administrators.

The paper has suggested that cadastres of public sector assets that record the physical characteristics of these assets as well as their values could become valuable tools for government policies. Such cadastres would be costly to develop but, like national accounts, once developed they would make countries wonder how they got along without them.

This paper is just a brief introduction to a complex area. Hopefully, it will encourage other experts to enter it and to deal with it in more details than it was possible in this occasion.

Reference

- Alan, R., 1995, "Evaluating Changes in a Government's Net Economic Position," Australian Society of CPA, Melbourne, Australia.
- Auerbach, Alan J., Laurence J. Kotlikoff, and Willie Leibfritz, editors, 1999, *Generational Accounting Around the World* (Chicago: The University of Chicago Press).
- Australian Accounting Research Foundation, 1996, "Financial Reporting by Governments, Australian Accounting Standard # 31."
- Baumol, Williams J., 1967, "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review*, 57 (June), pp. 415–426.
- Boskin, Michael J., 1982, "Federal Government's, Deficits: Some Myths and Realities," *AEA Papers and Proceedings*, Vol. 72, No. 2, (May).
- Buiter, Willem H., 1983, "Measurement of the Public Sector Deficit and Its Implications for Policy Evaluation and Design," *Staff Papers*, International Monetary Fund, Vol. 30, No. 2 (June), pp. 306-349.
- Department of the Treasury, US Government, 2000, *Financial Report of the United States Government, 1999*, (Washington: Department of the Treasury).
- Government of New Zealand, 1998, "Generally Accepted Accounting Practice (GAAP) Series Tables."
- Gupta, Sanjeev, Marijn Verhoeven, and Erwin Tiongson, 1999, "Does Higher Government Spending Buy Better Results in Education and Health Care?" Working Paper 99/68 (Washington: International Monetary Fund).
- Henderson, W.D., Irons, S.J., Salant, W.S., and Thomas, S., 1997, "Can Government Gold be Put to Better Use? Qualitative and Quantitative Effects of Alternative Policies," Board of Governors of the Federal Reserve System, Washington, D.C.
- IMF, 1995, *Unproductive Public Expenditure* (Washington: International Monetary Fund).
- International Federation of Accountants, 1997, "Perspectives on Accrual Accounting," Occasional Paper 3, New York.
- Italy, 1987, *Commissione di Indagine sul Patrimonio Pubblico, Relazione Conclusiva* (Rome).

- Keith, L. R., and McHugh, A.J., 1993, "Valuing Massachusetts' Fixed Assets: A Contemporary Solution To An Historical Problem," *Public Budgeting and Finance* (Spring), pp. 102-107.
- Littrell, E., and Thompson F., 1998, "Fixed Asset Reporting: a Research Note," *Public Budgeting and Finance* (Spring), pp. 94-97.
- National Audit Office, UK, 1995, "Resource Accounting and Budgeting in Government," HSMO, London.
- OECD, 2000, *The OECD Survey of Budgeting Developments--Results*, PUMA/SBO (2000), Paris.
- Office of Management and Budget, 2000, *Analytical Perspectives: Budget of the United States Government, Fiscal Year 2001* (Washington: US Government Printing Office).
- The Treasury, Government of UK, 1994, "Better Accounting for the Taxpayer's Money," Her Majesty's Stationary Office, London.

